Eric F. Pastor
Pastor, Behling & Wheeler, LLC
2201 Double Creek Drive, Suite 4004
Round Rock, TX 78664

Re: Gulfco Marine Maintenance Superfund Site, Freeport, Texas
Unilateral Administrative Order, CERCLA Docket No. 06-05-05
Intracoastal Waterway Sediment and surface Water Data

Dear Mr. Pastor,

Thank you for the Gulfco Site Intracoastal Waterway sediment and surface water data in your letter dated September 18, 2006. In this letter you also proposed modifications to the site investigation activities that are described in the RI/FS Workplan May 16, 2006. Please find the enclosed comments on the proposed investigation activities. The comments reflect the reviews conducted by the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ). The modifications as proposed are not approved, however, the modifications as described in the attached comments are approved. If you still wish to meet regarding the sampling data, please let me know so that we can get something scheduled.

Sincerely yours,

Gary Miller, P.E.
Remediation Project Manager

cc: Susan Roddy
Dipanjana Bhattacharya
Luda Voskov (TCEQ)
Jessica White (NOAA)
Barry Forsythe (USFWS)
bcc: Barbara Nann (6RC-S)

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**Gulfco Marine Maintenance Superfund Site (Site)**

**Comments:**

1. (Page 2, 5th paragraph): The letter proposes that if the sediment is less than 2 inches thick at a sampling location, then a sediment sample will not be collected there. Previous sediment sampling experience in the Intracoastal Waterway near the site found areas that varied from completely scoured (no soft sediment) to thicker sediment layers. In some areas, it was necessary to make several attempts to collect the necessary sample volume. This proposed modification to the RI/FS Workplan is not approved, and, in cases where sufficient sediment samples volume cannot be obtained at the planned location, then additional attempts to collect a sample shall be made. Four additional attempts shall be made to collect the sediment sample within 50 feet of the proposed location, unless an adequate sample can be collected with fewer attempts. If after the four additional attempts have been made an adequate sample cannot be recovered, then no sample at that location will be required, and the lateral extent of sediment at that location will have been defined.

2. (Page 3, Fish Tissue Investigation): The letter proposed alternative sediment Preliminary Screening Values (PSVs) instead of the approach included in the approved RI/FS Workplan. According to the letter, these alternative PSVs are conservative screening values developed from TCEQ guidance on determining sediment screening levels, from the fate and transport model in EPA's guidance on risk assessment for hazardous waste combustion facilities, and measured biota sediment accumulation factors from the Calcasieu Estuary for chemicals without accumulation factors in the guidance. The proposed modification to the sediment PSVs would result in no fish and crab tissue sampling, and is not approved for reasons including the following:

    a. The proposed alternative PSVs are calculated with a default fish ingestion rate of 0.015 kg/day, which is the default proposed in the TCEQ guidance. However, the TCEQ guidance states that the default ingestion rate roughly corresponds with two fish meals per month, and acknowledges that local differences in fish consumption rates may warrant the use of amounts that differ from the default. Also, the TCEQ guidance states that the Texas Department of Health uses an assumed fish ingestion rate that is twice as high, or 0.030 kg/day. The result of using the Texas Department of Health default instead of the proposed value would be to reduce the proposed alternative PSVs by one half. Since the purpose is to decide whether or not additional data is needed (i.e., fish and crab sampling), the PSVs should be on the conservative side (i.e., lower numbers) so that potential contamination pathways are not overlooked.
    b. The proposed screening factors are calculated with a carcinogenic risk level of $1 \times 10^{-5}$, which is the default parameter in the TCEQ guidance for a single contaminant. Table 4 in the letter identifies a number of compounds detected

in the sediment including both carcinogenic and non-carcinogenic compounds. The TCEQ guidance acknowledges that the impact of multiple chemicals may result in the need to lower the PSVs to meet the cumulative risk level. The proposed alternative PSVs proposal does not address the impact of multiple contaminants in the sediment, nor does it address the cumulative exposure to contaminants in other environmental media that may be present. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Final Rule (Federal Register Vol. 55, No 46, page 8666, March 8, 1990) also recognizes the potential impact of multiple chemicals in multiple media. According to the NCP a carcinogenic risk level of $1 \times 10^{-6}$ "shall be used as the point of departure for determining remediation goals for alternatives when ARARs are not available or are not sufficiently protective because of the presence of multiple contaminants at a site or multiple pathways of exposure." The Final Rule also states that the point of departure represents a level from which analysis should begin. The result of using the $1 \times 10^{-6}$ risk level instead of the proposed value would be to reduce the proposed alternative carcinogenic PSVs by a factor of ten, or an order of magnitude. Since the purpose is to decide whether or not additional data is needed (i.e., fish and crab sampling), the PSVs should be on the conservative side (i.e., lower numbers) so that potential contamination pathways are not overlooked.

c. The proposed alternative PSVs are calculated with a factor for the "fraction of organic carbon in bottom sediment" of 0.04, a default value obtained from the EPA guidance on combustion. The actual site carbon fraction has not been measured and a more conservative value for this factor would be 0.01, which is the value measured for the State Marine Superfund Site, and is the default value from EPA's "The Incidence and Severity of Sediment Contamination in Surface Waters of the United States" Second Edition (2004), and is the default value from TCEQ's guidance TRRP-24: "Determining PCLs for Surface Water and Sediment. The result of using the 0.01 factor would be to lower the proposed alternative PSVs by a factor of four. Since the purpose is to decide whether or not additional data is needed (i.e., fish and crab sampling), the PSVs should be on the conservative side (i.e., lower numbers) so that potential contamination pathways are not overlooked.

d. Using the same calculation method as described in your letter, but with the factors revised as described above, Table 4 from the letter has been modified as shown in the attached table.

3. (Table 4): The table includes a determination of whether a chemical is bioaccumulative. Antimony, arsenic, beryllium, chromium, lead, silver, and 2-methylnaphthalene are not identified as bioaccumulative chemicals. These chemicals are considered to be bioaccumulative by EPA and shall be identified as such.

In summary, the proposed alternative PSVs are not based on site data, but instead are based on an alternative set of assumptions and default values. The proposed alternative PSVs would preclude the collection of site data to make a risk determination, which could result in overlooking a potential contamination pathway. Use of the proposed alternative PSVs is not approved, and work shall proceed in accordance with the previously approved workplan to collect fish and crab samples and perform analysis for the chemicals shown in the attached table that exceed the PSVs and are above background. The required analyses include: antimony, lead, silver, 4,4-DDE, benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, hexachlorobenzene, and indeno(1,2,3-cd)pyrene.